

| UNITED STATES OF AMERICA<br>COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION  |                                      | OFGS FILE NO.<br><b>10909-144</b>                     |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
|--|--------------------------------------|---|---|--------------------------------------|--|---|-------|-------------|-------------|----------------------|--|--|--|------------------|--|--|--|------------------|
| <p>As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named) of the subject matter which is claimed and for which a patent is sought on the invention entitled:</p> <p style="text-align: center;"><b>TEMPERATURE-INDEPENDENT ARRAYED WAVEGUIDE GRATING DEVICE</b></p>   |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>the specification of which is attached hereto, unless the following box is checked:</p> <p><input type="checkbox"/> was filed on _____ as United States patent Application Number or PCT International patent application number _____ and was amended on _____ (if any).</p>   |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.</p> <p>I acknowledge the duty to disclose all information known to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.</p> <p>I hereby claim priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate or United States provisional application(s) listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:</p>  |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p><b>Prior Foreign or Provisional Application(s)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">COUNTRY</th> <th style="width: 30%;">APPLICATION NUMBER</th> <th style="width: 25%;">DATE OF FILING<br/>(day, month, year)</th> <th style="width: 20%;">PRIORITY CLAIMED<br/>UNDER 35 U.S.C. 119</th> </tr> </thead> <tbody> <tr> <td>Japan</td> <td>186721/1999</td> <td>30, 6, 1999</td> <td>YES ____ NO <u>X</u></td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td>YES ____ NO ____</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td>YES ____ NO ____</td> </tr> </tbody> </table>   |                                      |   | COUNTRY                                 | APPLICATION NUMBER                   | DATE OF FILING<br>(day, month, year)     | PRIORITY CLAIMED<br>UNDER 35 U.S.C. 119 | Japan | 186721/1999 | 30, 6, 1999 | YES ____ NO <u>X</u> |  |  |  | YES ____ NO ____ |  |  |  | YES ____ NO ____ |
| COUNTRY  | APPLICATION NUMBER                   | DATE OF FILING<br>(day, month, year)                  | PRIORITY CLAIMED<br>UNDER 35 U.S.C. 119 |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| Japan  | 186721/1999                          | 30, 6, 1999   | YES ____ NO <u>X</u>                    |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
|  |                                      |   | YES ____ NO ____                        |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
|  |                                      |   | YES ____ NO ____                        |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">UNITED STATES<br/>APPLICATION NUMBER</th> <th style="width: 30%;">DATE OF FILING<br/>(day, month, year)</th> <th style="width: 40%;">STATUS<br/>(patented, pending, abandoned)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> |                                      |   | UNITED STATES<br>APPLICATION NUMBER     | DATE OF FILING<br>(day, month, year) | STATUS<br>(patented, pending, abandoned) |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| UNITED STATES<br>APPLICATION NUMBER  | DATE OF FILING<br>(day, month, year) | STATUS<br>(patented, pending, abandoned)              |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
|  |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
|  |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
|  |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>I hereby appoint OSTROLENK, FABER, GERB &amp; SOFFEN, and the members of the firm, Marvin C. Soffen - Reg. No. 17,542; Samuel H. Weiner - Reg. No. 18,510; Jerome M. Berliner - Reg. No. 18,653; Robert C. Faber - Reg. No. 24,322; Edward A. Meilman - Reg. No. 24,735; Stanley H. Lieberstein - Reg. No. 22,400; Steven I. Weisburd - Reg. No. 27,409; Max Moskowitz - Reg. No. 30,576; Stephen A. Soffen - Reg. No. 31,063; James A. Finder - Reg. No. 30,173; William O. Gray, III - Reg. No. 30,944 and Louis C. Dujmich - Reg. No. 30,625, as attorneys with full power of substitution and revocation to prosecute this application, to transact all business in the Patent &amp; Trademark Office connected therewith and to receive all correspondence.</p> <p><b>SEND CORRESPONDENCE TO:</b> OSTROLENK, FABER, GERB &amp; SOFFEN<br/>1180 AVENUE OF THE AMERICAS<br/>NEW YORK, NEW YORK 10036-8403</p> <p><b>DIRECT TELEPHONE CALLS TO:</b> (212) 382-0700</p>  |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believable to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.</p>  |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>FULL NAME OF SOLE OR FIRST INVENTOR<br/><b>SHIGERU YONEDA</b></p>   |                                      | <p>INVENTOR'S SIGNATURE<br/><i>Shigeru Yoneda</i></p> |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>RESIDENCE<br/>Tokyo, Japan</p>  |                                      | <p>DATE<br/>12/26/2000</p>                            |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>POST OFFICE ADDRESS<br/>c/o NEC Corporation, 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan</p>  |                                      |   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>FULL NAME OF SECOND JOINT INVENTOR (IF ANY)</p>   |                                      | <p>INVENTOR'S SIGNATURE</p>                           |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>RESIDENCE</p>   |                                      | <p>DATE</p>   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>POST OFFICE ADDRESS</p>   |                                      | <p>COUNTRY OF CITIZENSHIP</p>                         |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>FULL NAME OF THIRD JOINT INVENTOR (IF ANY)</p>  |                                      | <p>INVENTOR'S SIGNATURE</p>                           |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>RESIDENCE</p>   |                                      | <p>DATE</p>   |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |
| <p>POST OFFICE ADDRESS</p>   |                                      | <p>COUNTRY OF CITIZENSHIP</p>                         |   |                                      |  |   |       |             |             |                      |  |  |  |                  |  |  |  |                  |